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1ZTR1204002400

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See drawing 1ZTR1204002401 which will be ready after manufacturing for marking of conductors.

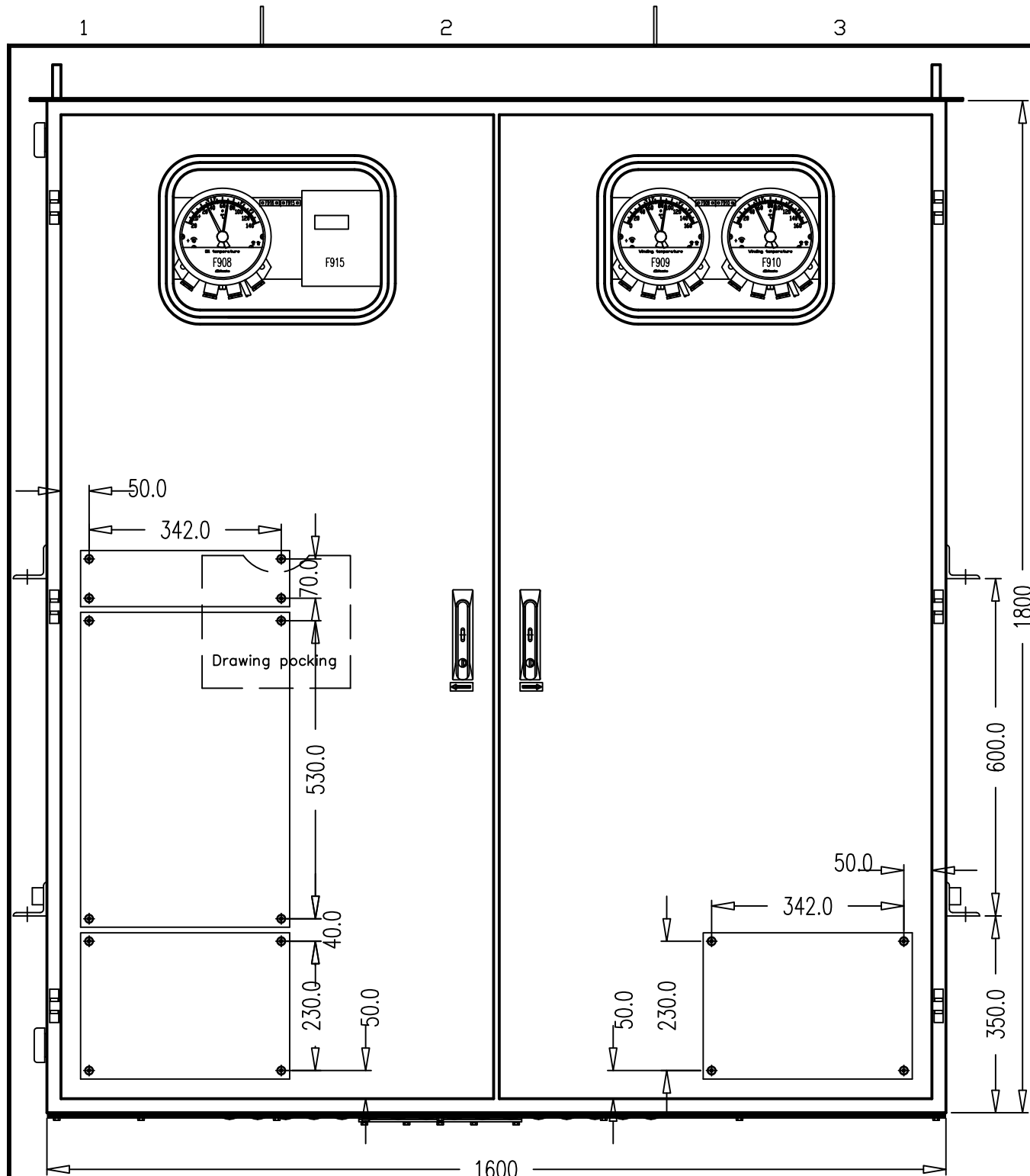
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Production engineering review
Inspection engineering review
Design engineering review

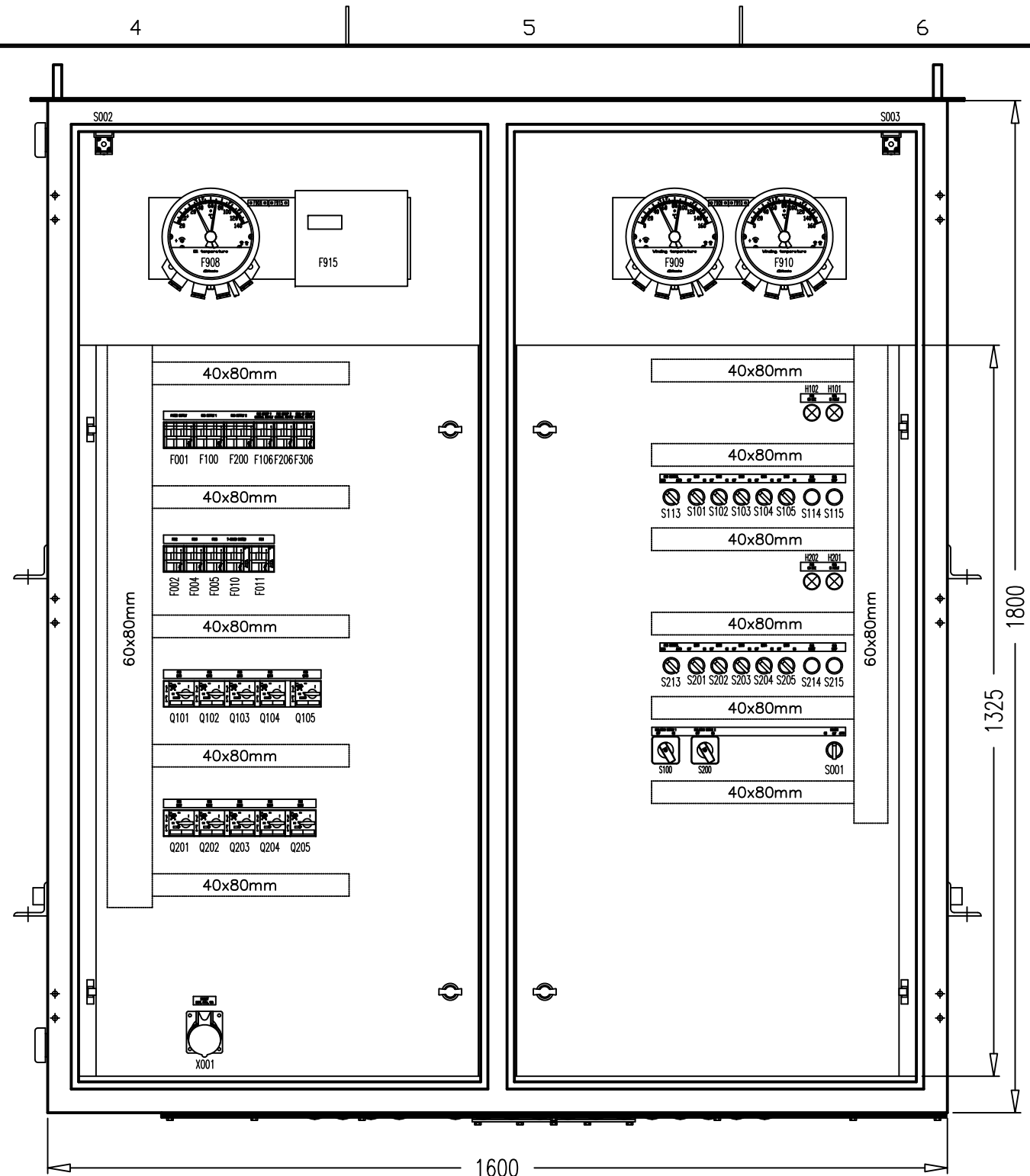
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FRONT VIEW



INNER DOOR VIEW

NOTES:

1-PAINING:

RAL : 7038

2-DIMENSIONS: 1800X1600X400

mm (HxWxD)

3-DEGREE OF PROTECTION: IP 55

4-THICKNESS OF PANEL: 2.5 mm

(STEEL)

Layout

02	View Changed	-	31/10/12
01	F306 Added	-	22/08/12
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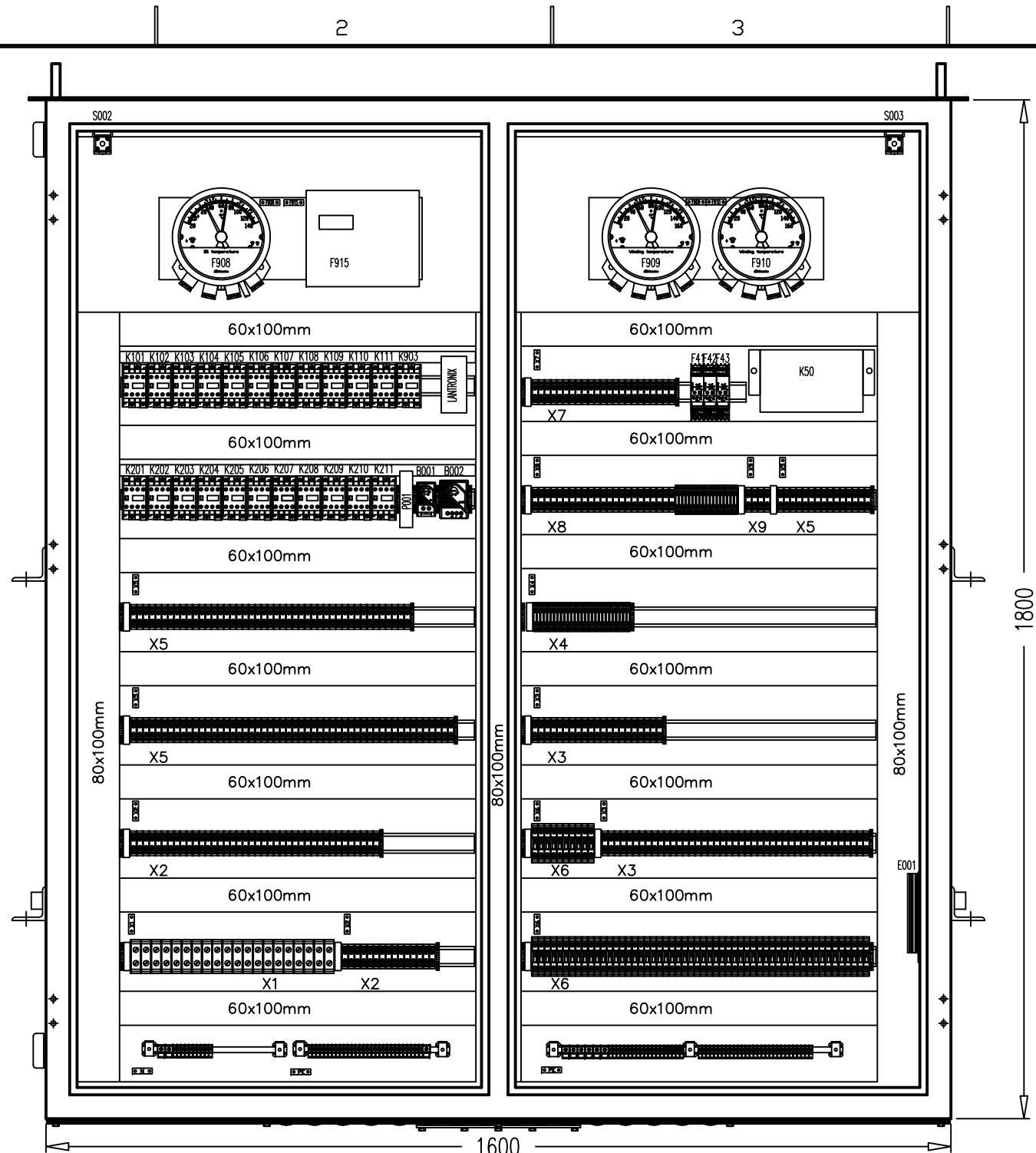
Design engineering review

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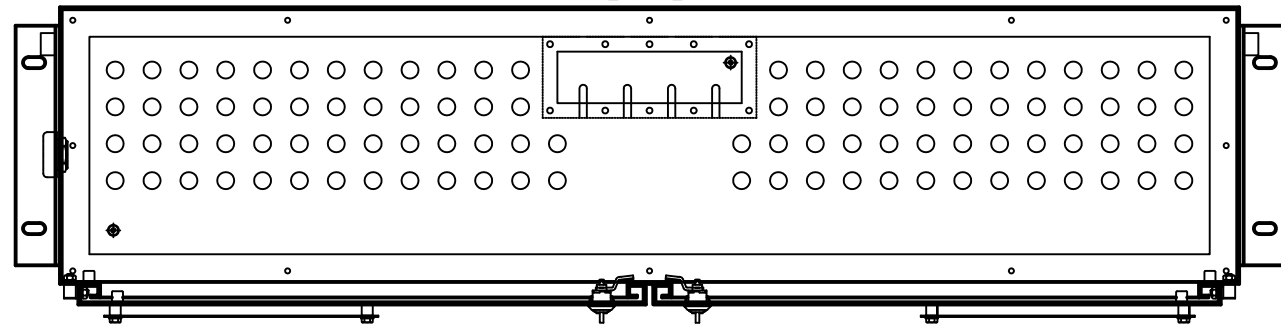
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1600
INNER VIEW



Layout

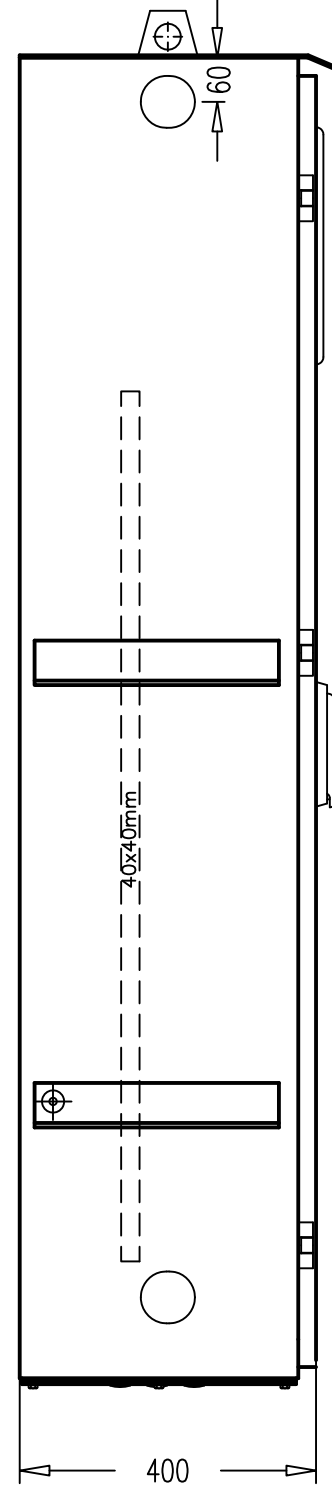
03	View Changed	-	26/01/13
02	View Changed	-	31/10/12
01	K50 Added	-	22/08/12
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Internal Wiring : Type 600/1000 V

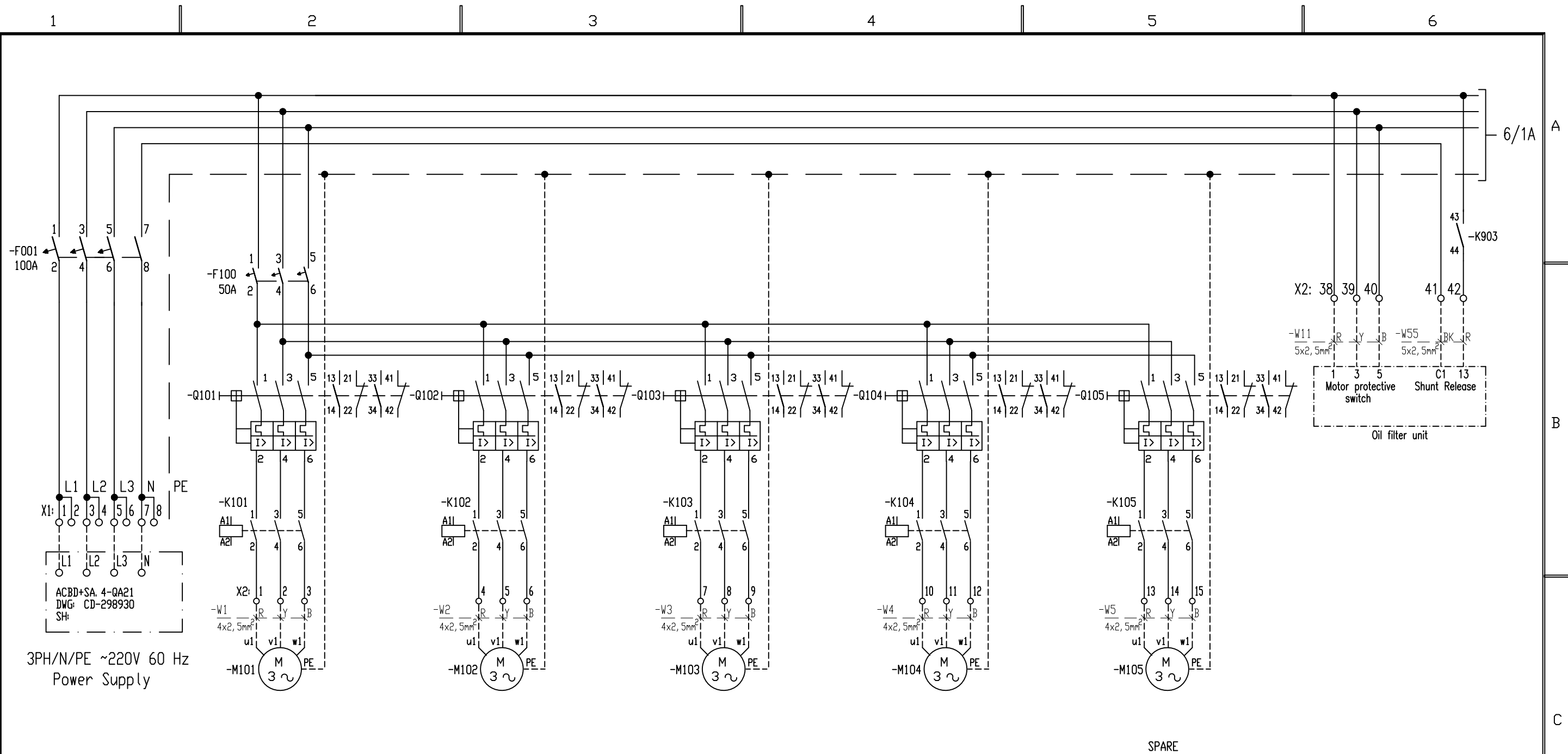


400
SIDE VIEW

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Power circuit of fan motors

03	Revised	-	13/03/14
02	Lineis Edited	-	31/10/12
01	W11 Line Edited	-	22/08/12
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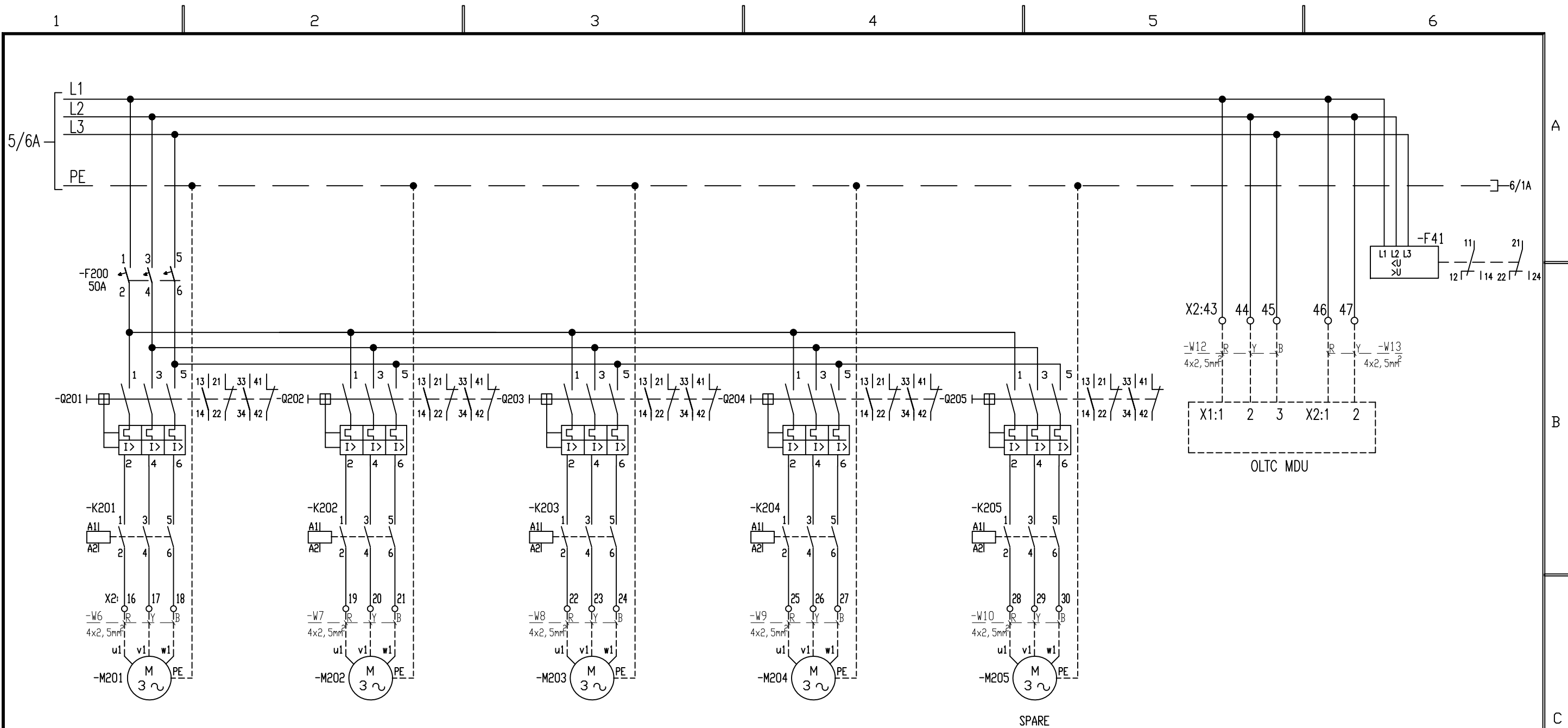
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Note : Thermal set value of Q201,Q202,Q203,Q204,Q205 : 5A

Power circuit of fan motors

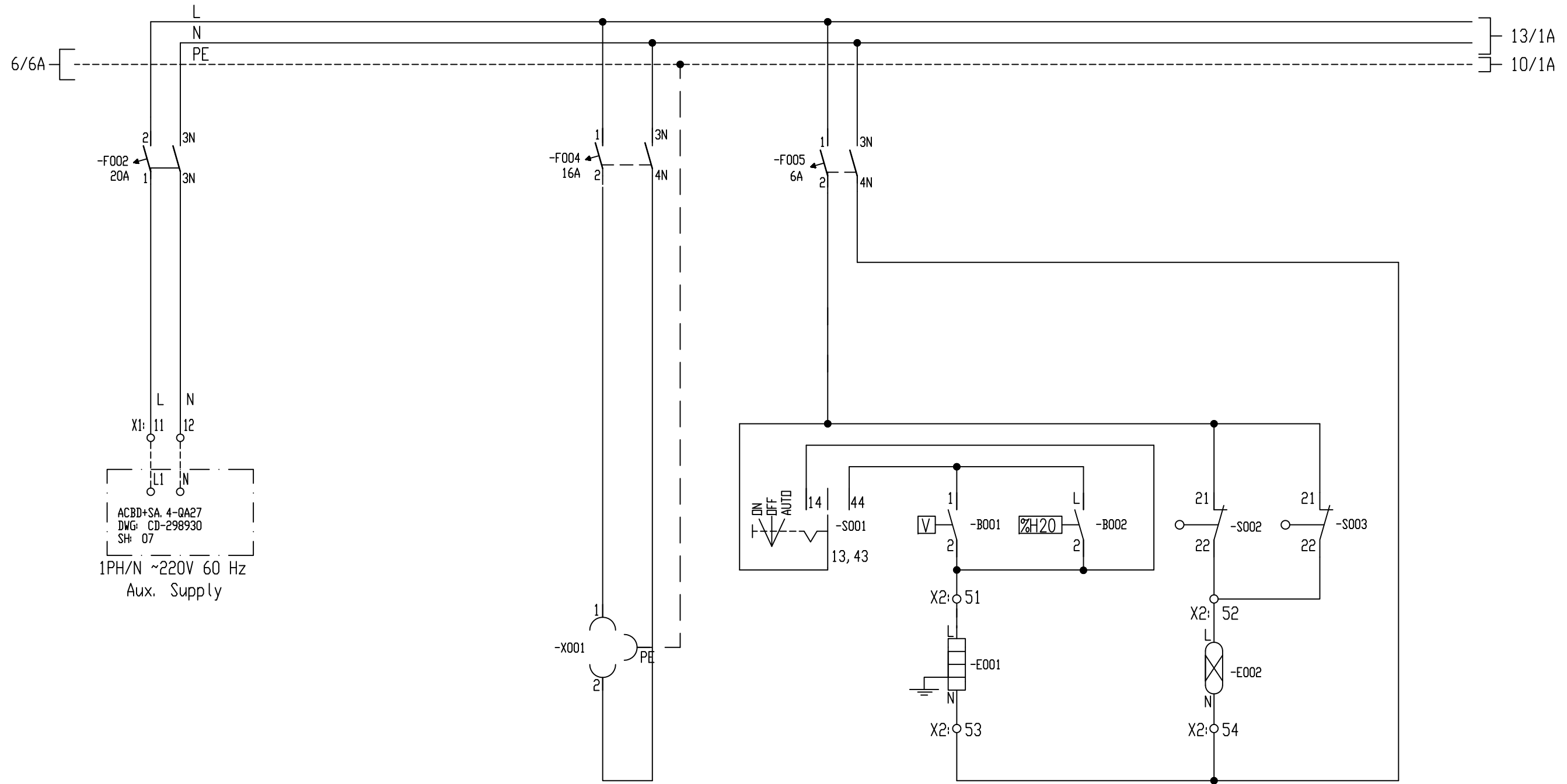
03	-F41 Added	-	26/01/13
02	Lineis Edited	-	31/10/12
01	Q201,.....,Q205 Names Edited	-	22/08/12
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ACBD+SA. 4-QA27
DWG: CD-298930
SH: 07
1PH/N ~220V 60 Hz
Aux. Supply

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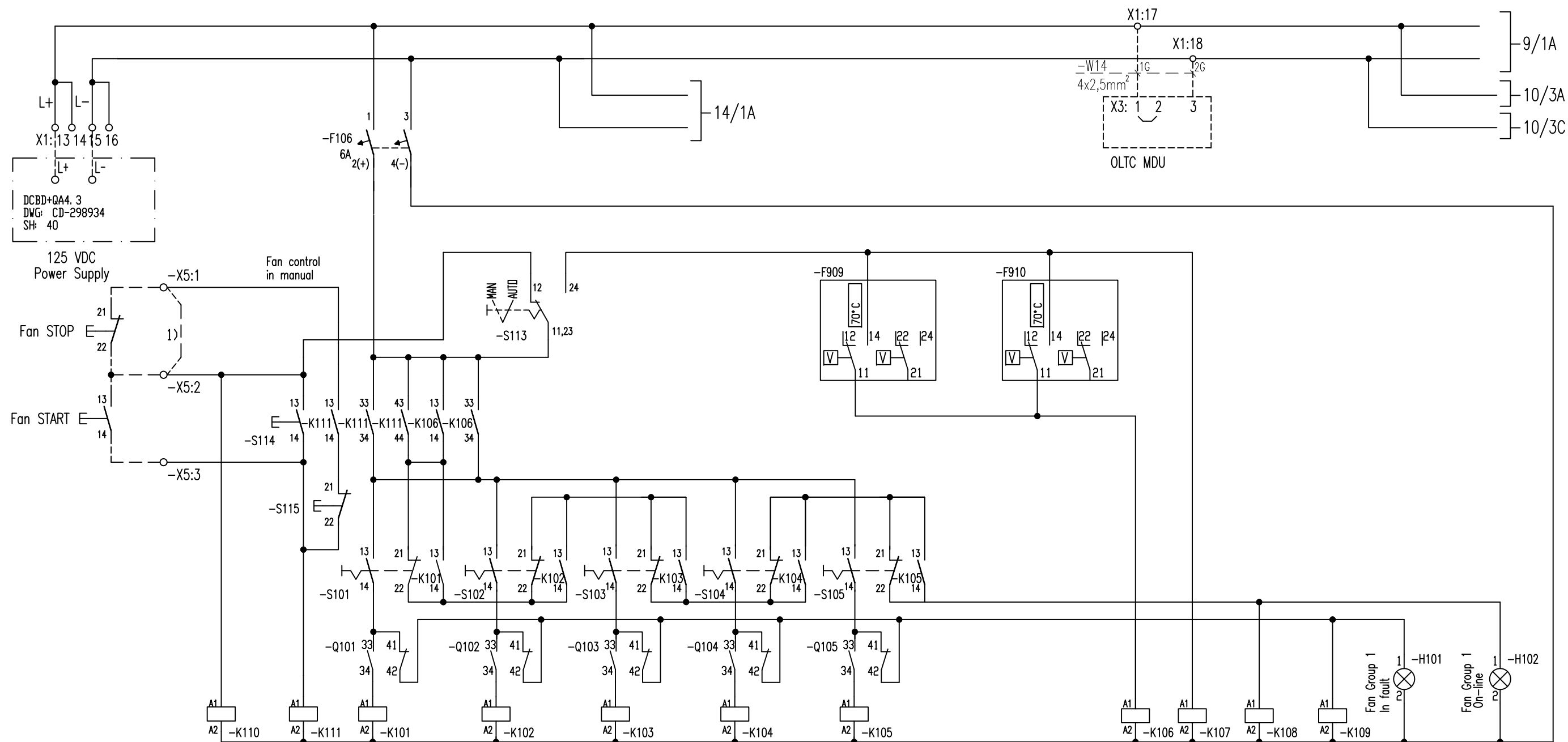
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Illumination, socket & heating

02 01	Revised Circuit Changed	- -	13/03/14 31/10/12
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1) Remove the link in case of using remote control buttons.

Control circuit of fan Group 1 motors

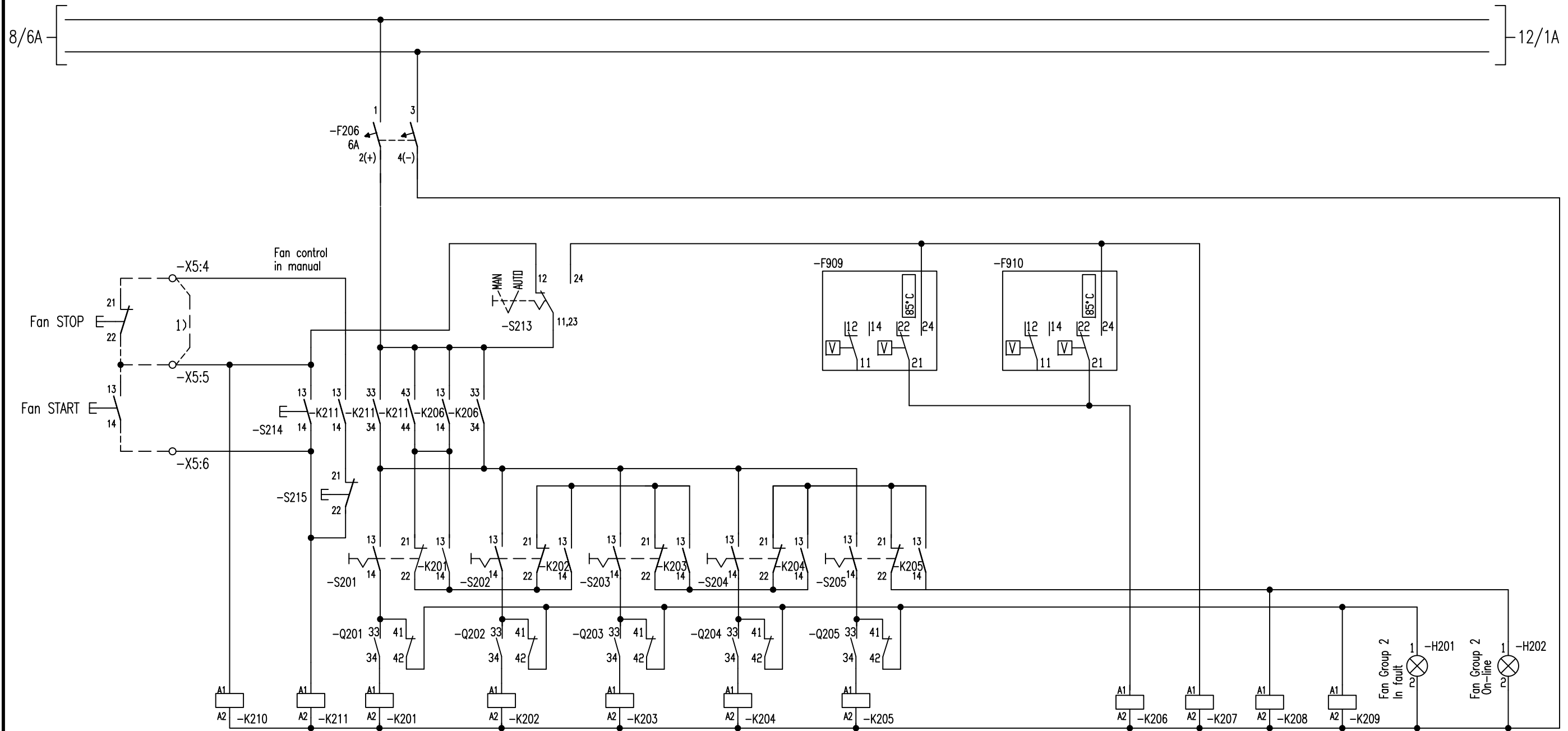
03	Revised	-	13/03/14
02	Line edited	-	31/10/12
01	-F908 Removed	-	22/08/12
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1) Remove the link in case of using remote control buttons.

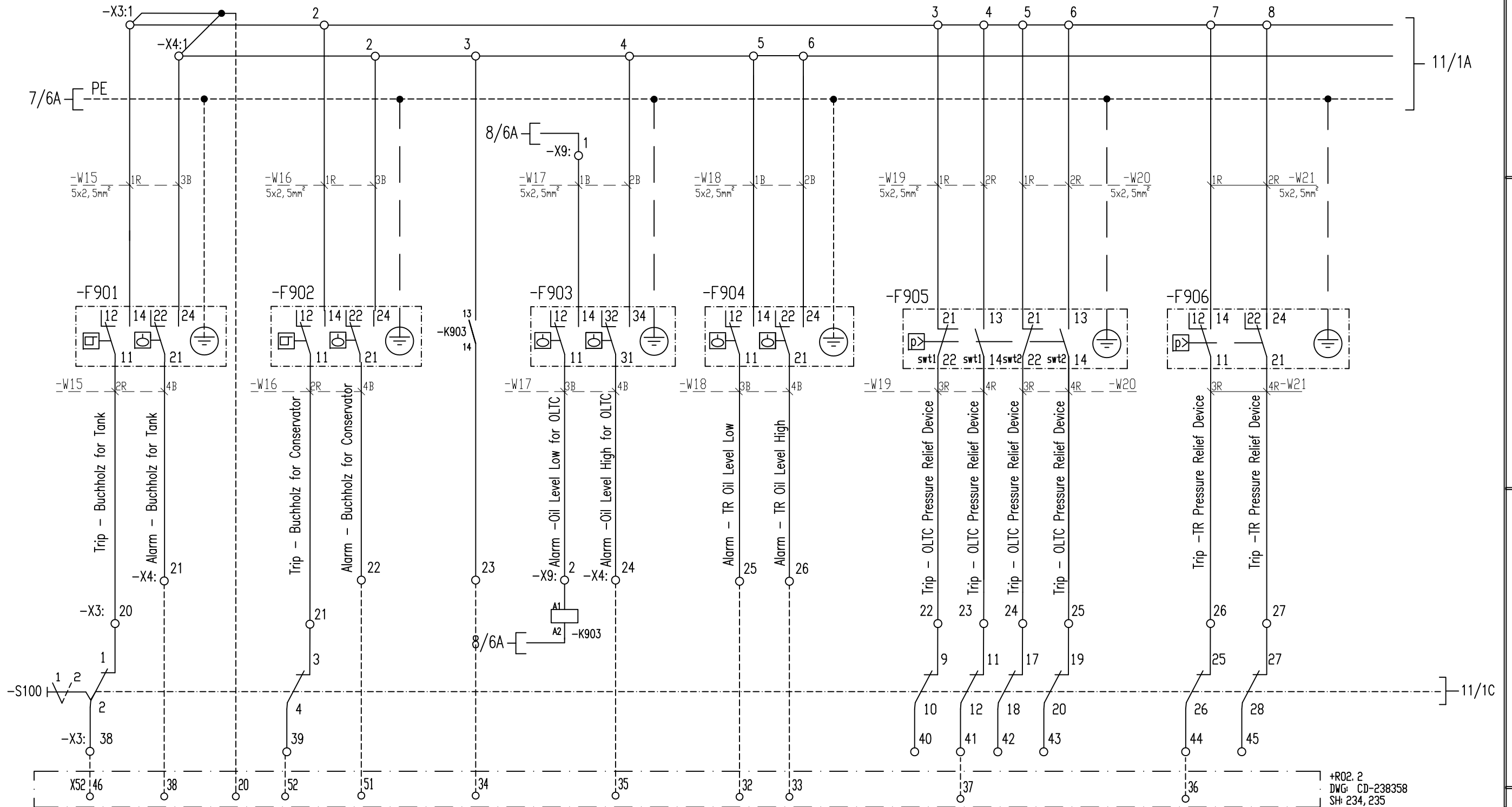
Control circuit of fan Group 2 motors

01	-F908 Removed	-	22/08/12
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- F901: Buchholz Relay for tank, EMB DR80
 - F902: Buchholz Relay for conservator (Leakage detection) EMB DR25
 - F903: Oil level indicator for OLTC, COMEM, Type LA22
 - F904: Oil level indicator for tank, COMEM, Type LB22
 - F905: Pressure relief device for OLTC, QUALITROL
 - F906: Pressure relief device for Tank, QUALITROL XPRD00-00017729
- Protection relays of power transformer

03	Revised	-	13/03/14
02	Lineis Edited	-	31/10/12
01	Terminal Numbers Changed	-	22/08/12
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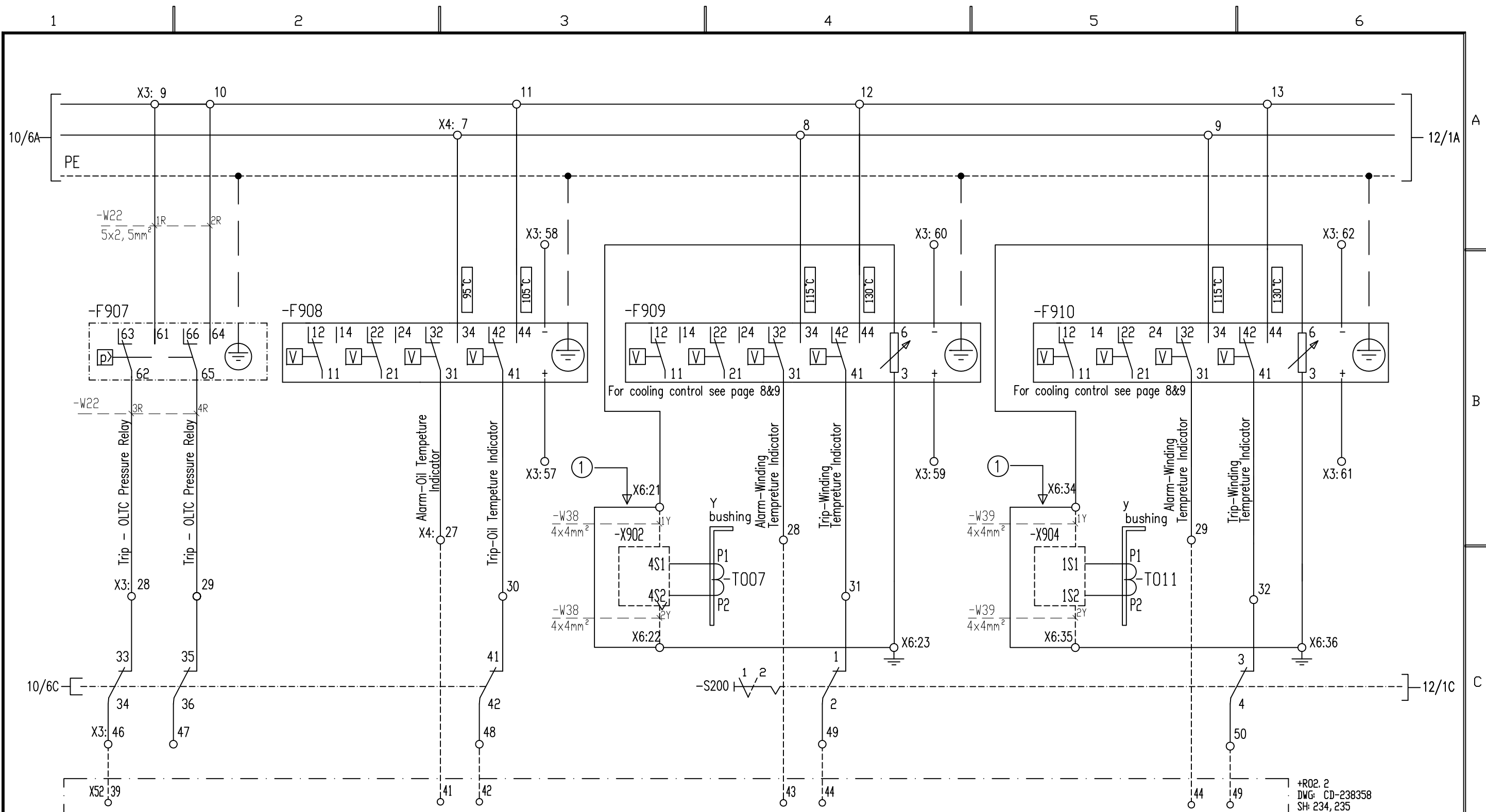
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- F907: Pressure relay for OLTC
- F908: Oil temperature indicator MESSKO, MT-ST 160SK /TT
- F909: Winding temperature indicator for HV MESSKO, MT-ST 160W/TT
- F910: Winding temperature indicator for LV MESSKO, MT-ST 160W/TT
- T007 :Current transformer 323 / 2; 10 VA ; 3Fs10 for HV winding temperature indication.
- T011:Current transformer 2510 / 2; 10 VA ; 3Fs10 for LV winding temperature indication.
- X904, -X902: Terminal box of current transformer.

WARNING : For the adjustment of the matching resistor for the heating current of the Winding temperature indicators see "Winding temperature [compact] Series" BA 2038 catalogue of MESSKO.
For more information about Oil temperature indicator see "Oil temperature [compact] Series" BA 2038 catalogue of MESSKO.

① When current transformer is in use, remove the connection.


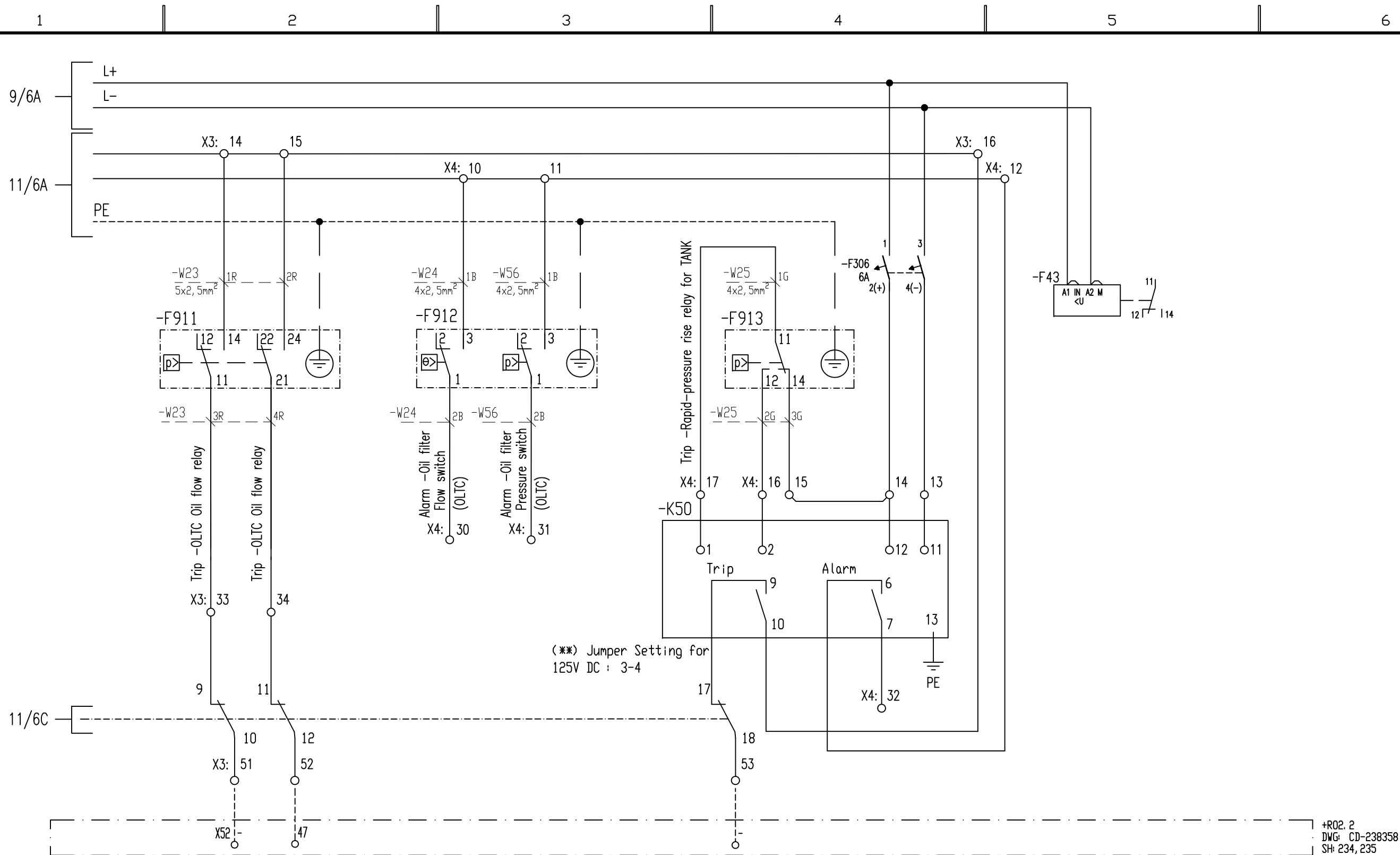
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ABB ABB Transformers

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-F911:Oil flow relay for OLTC, EMB Type ÜRF 25/10-2
-F912:Oil filter unit
-F913:Sudden Pressure relay main tank, EBM Type ÜRF
-K50 :Seal-in relay, QUALITROL 909-200-01
WARNING : For the adjustment of the matching resistor for the heating current of the Winding temperature indicators see "Winding temperature [compact] Series" BA 2038 catalogue of MESSKO.
For more information about Oil temperature indicator see "Oil temperature [compact] Series" BA 2038 catalogue of MESSKO.
Protection relays of power transformer

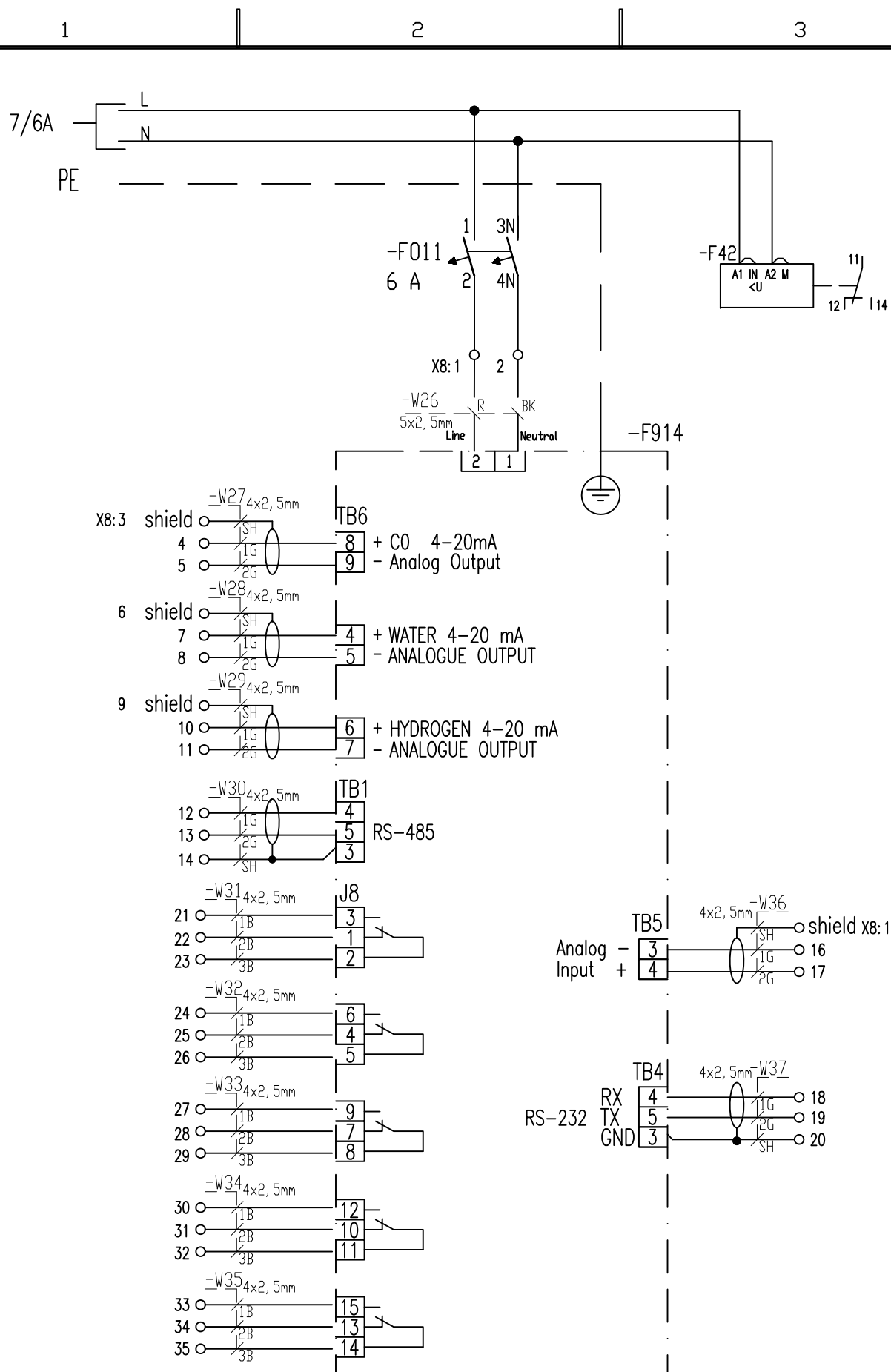
04	Revised	-	13/03/14
03	-F43 Added	-	26/01/13
02	Lineis Edited	-	31/10/12
01	-F306,K50 Added, Term. Num. Changed	-	22/08/12
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-F914:Dissolved Gas Analyzer (MORGAN SCHAFFER CALISTO 2)

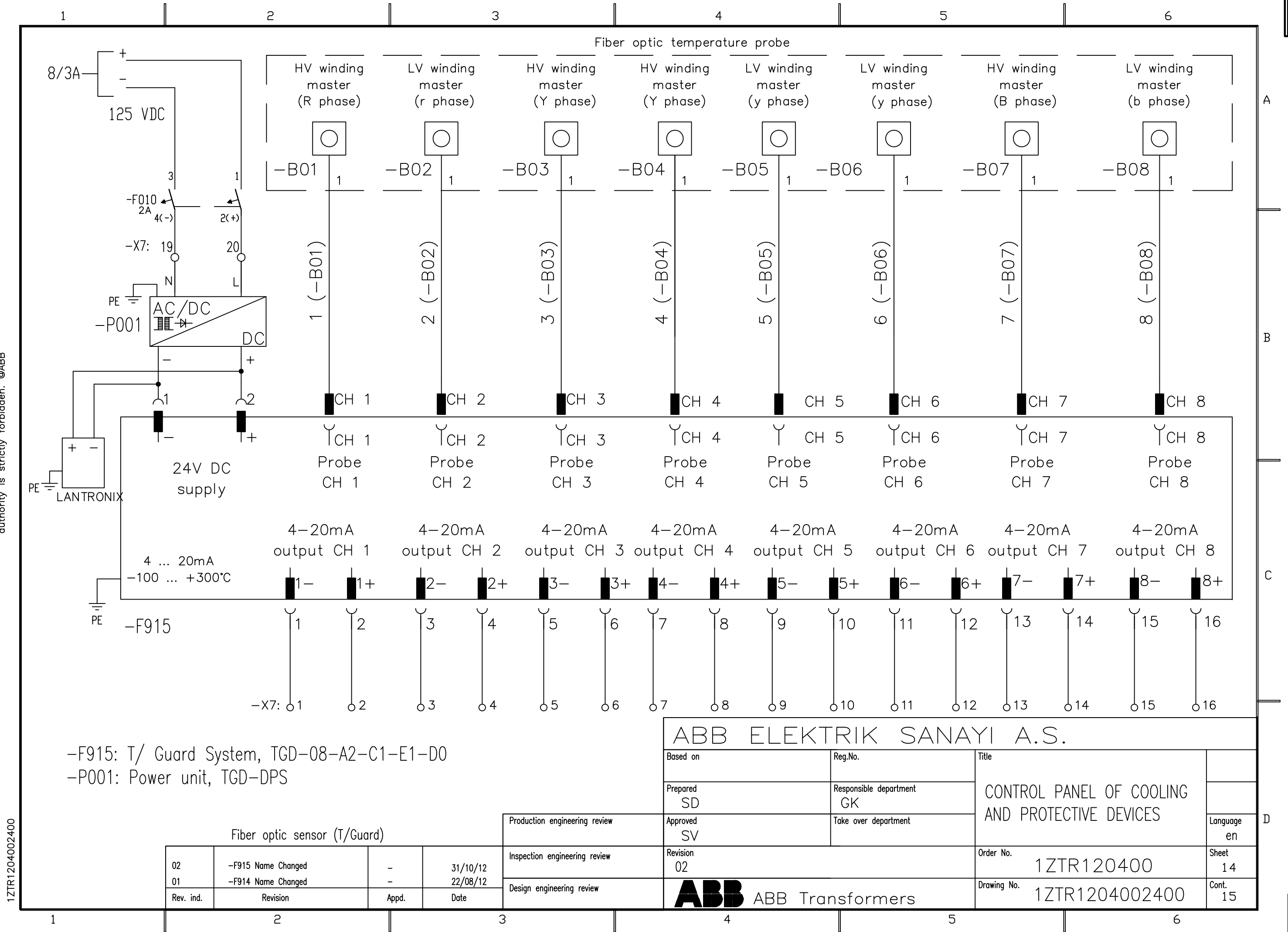
02	-F42 Added	-	26/01/13
01	Devices Added	-	31/10/12
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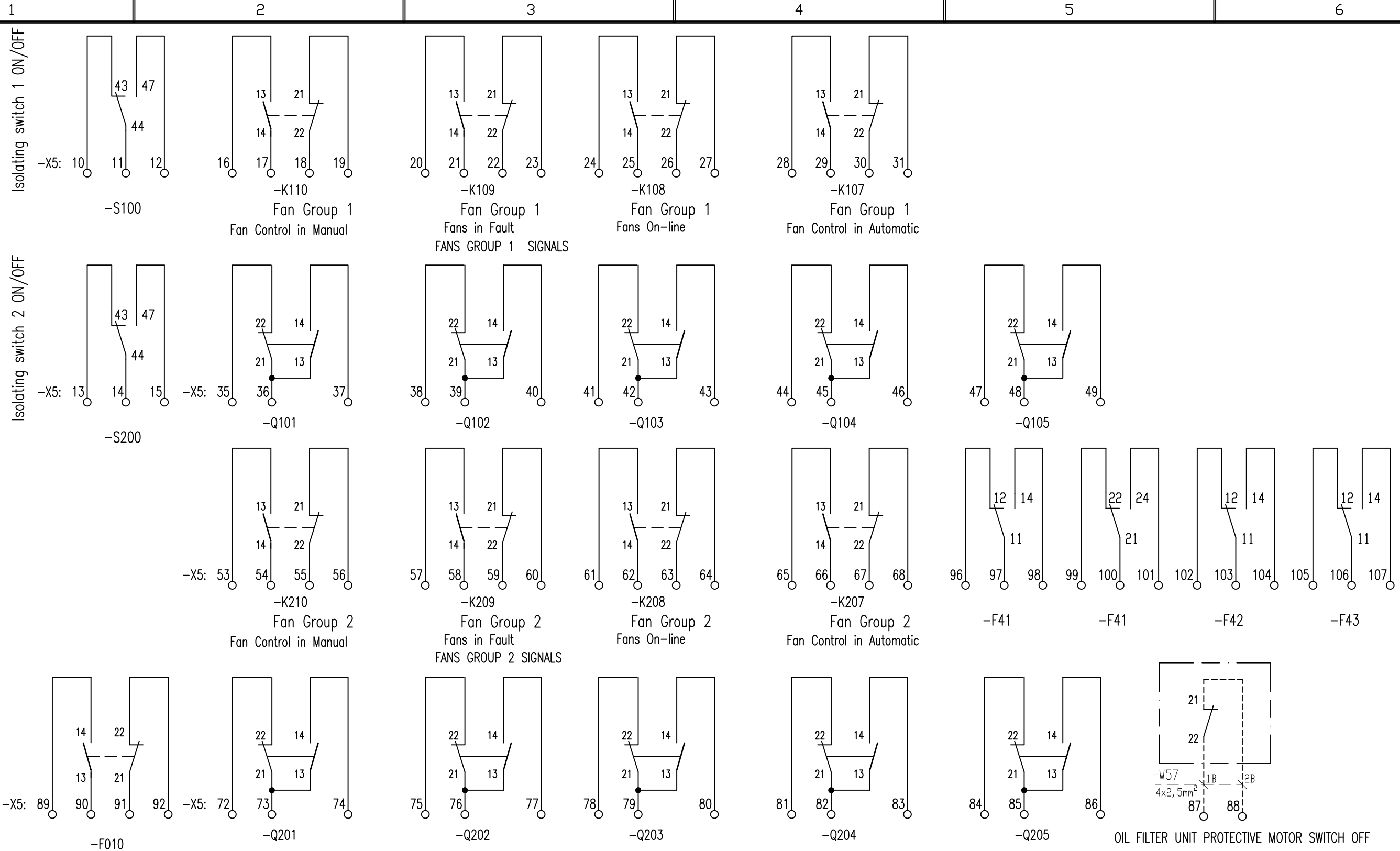


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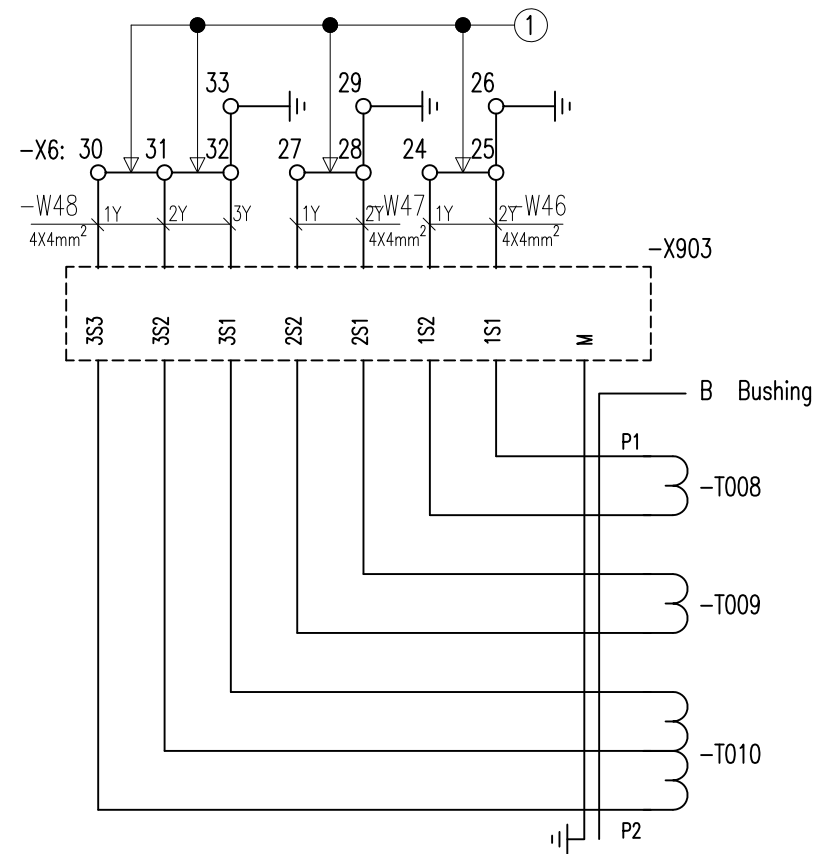
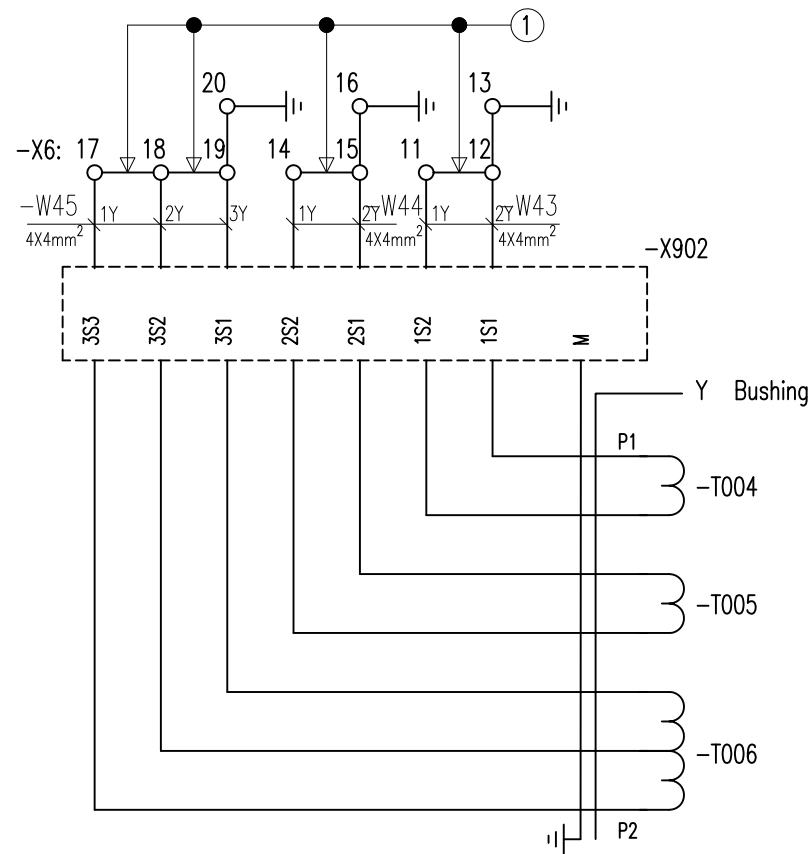
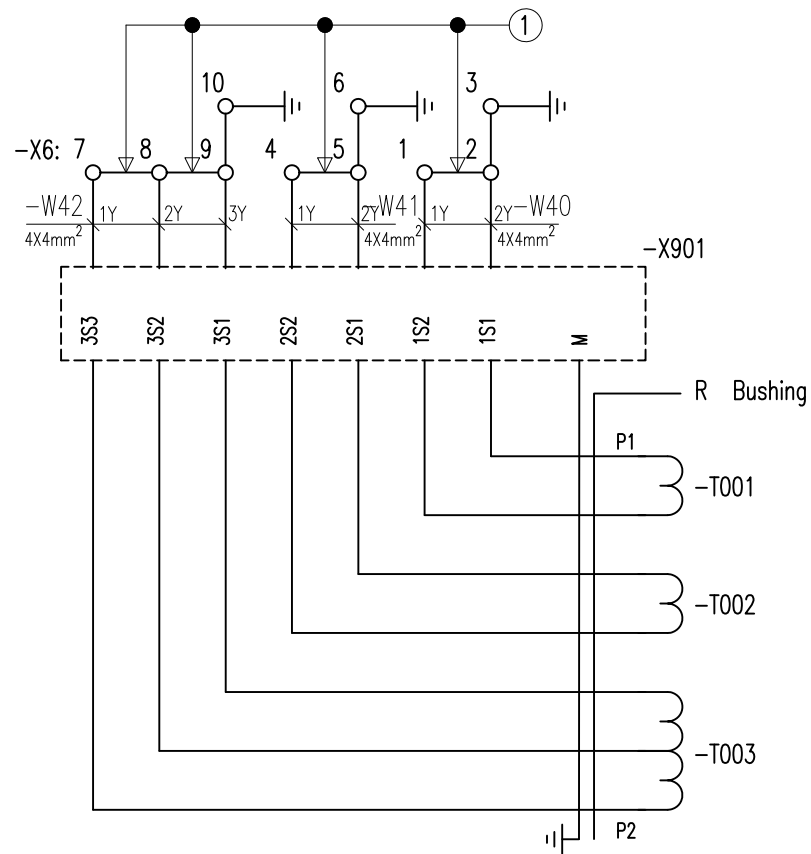
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Remote signals

02	Under Voltage Relay	-	26/01/13
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- T001, -T004, -T008 : Current transformer 300/1A ; Class X , $V_k > 360$, $R_{ct} < 1\Omega$, $I_m < 50\text{mA}$ at V_k
-T002, -T005, -T009 : Current transformer 300/1A ; Class 10P10 , Burden 30 VA,
-T003, -T006, -T010 : Current transformer 1200-800/1A ; Class X , $V_k > 1400$, $R_{ct} < 2\Omega$, $I_m < 25\text{mA}$ at lowest ratio
-X901, -X902, -X903 : Terminal box of current transformer

① When current transformers are in use, remove the connection.

Current transformers

02	Line Numbers Changed	-	31/10/12
01	Line Numbers Changed	-	22/08/12
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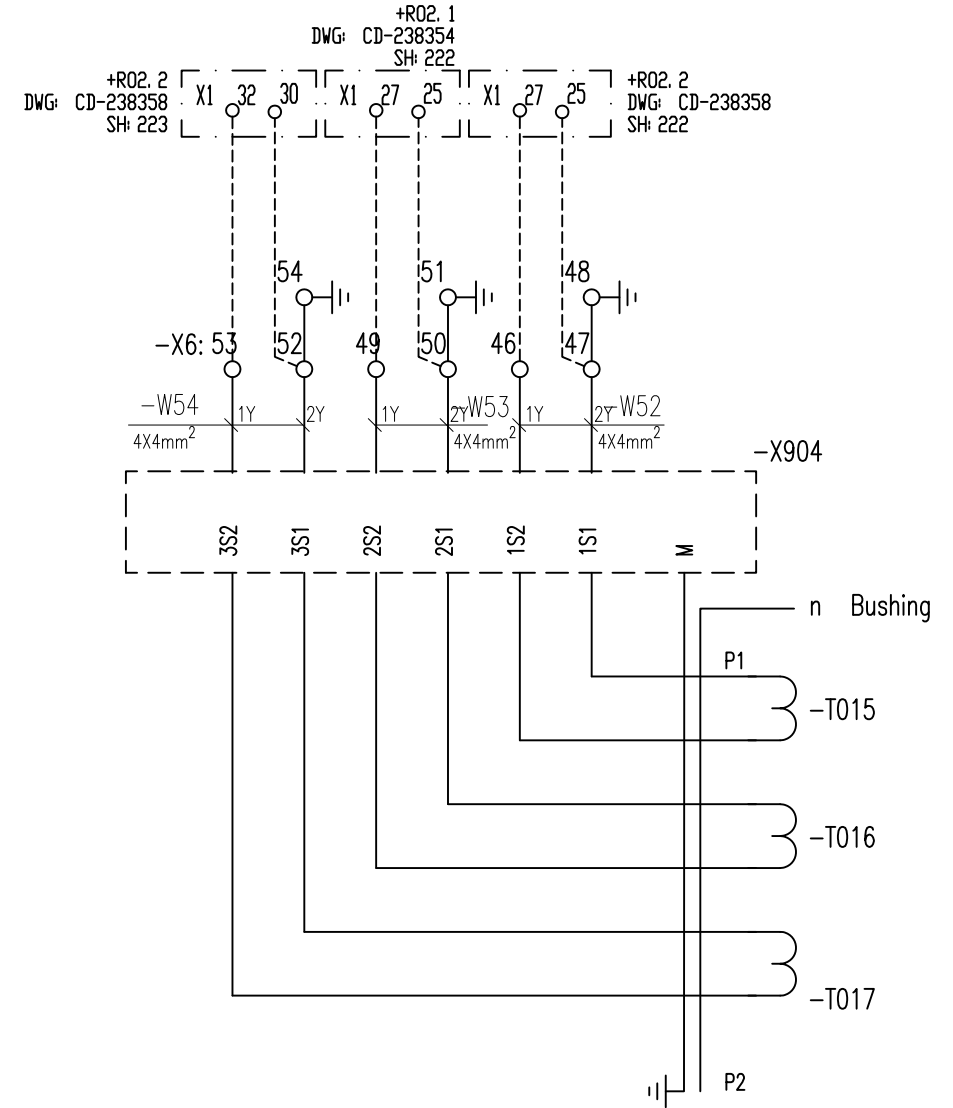
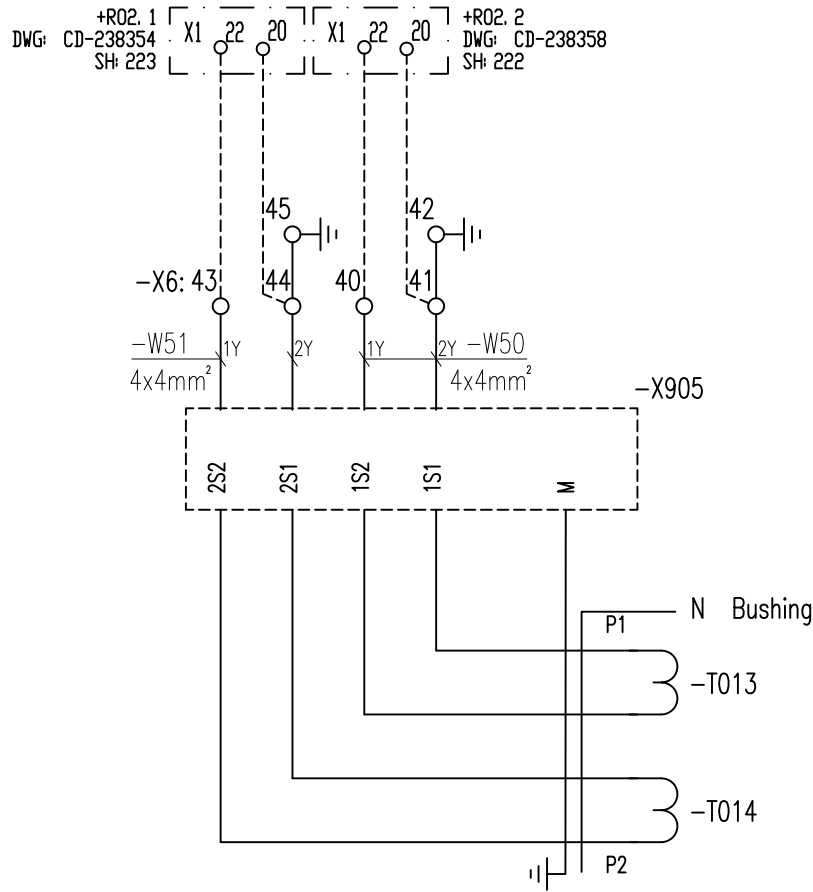
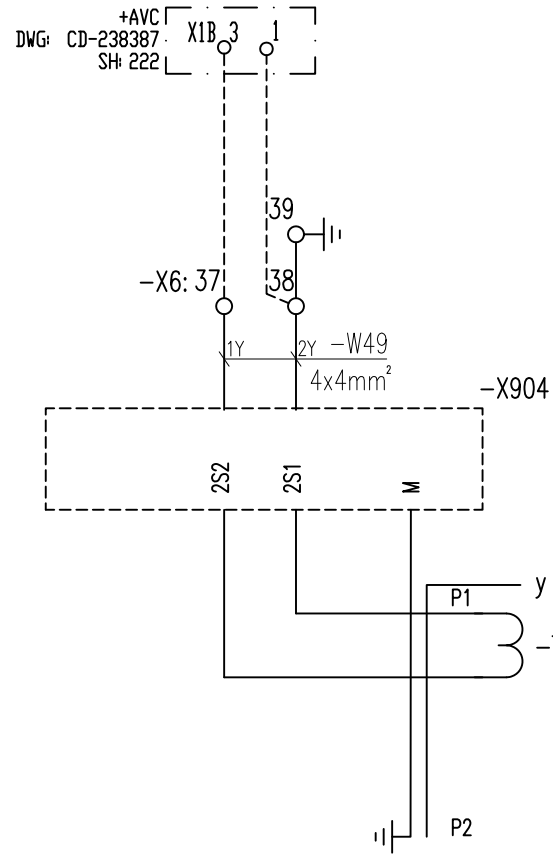
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- T013 -T014 : Current transformer 300/1A ; Class X ; $V_k > 360V$, $R_{ct} < 1\Omega$, $I_m < 50mA$ at V_k
-T012 : Current transformer 2510/5A ; Class 0,5 , 50VA
-T015 -T016 : Current transformer 3000/1A ; Class X ; $V_k > 765V$, $R_{ct} < 10\Omega$, $I_m < 25mA$ at V_k
-T017 : Current transformer 800/1A ; Class ; 5P20, 15VA

-X904, -X905,: Terminal box of current transformer

① When current transformers are in use, remove the connection.

Current transformers			
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Name of device Type Techn. data Label	Symbols for devices	Symbols, Current path from the schematic diagram				
Triple pole MCB ABB S 203-C 50 3P 50A 6kA FAN GROUP 1 SUPPLY FAN GROUP 2 SUPPLY						
	-F100	5/2B	5/2B	5/2B		
	-F200	6/1B	6/1B	6/1B		
Triple pole ABB S 284-C100 4P 100A 6kA POWER SUPPLY						
	-F001	5/1B	5/1B	5/1B	5/1B	
Double pole MCB ABB S 201-NA C16 1P+N 16A 6kA						
	-F004	7/3B	7/3B			
Double pole MCB ABB S 201-NA C6 1P+N 6A 6kA						
	-F011	13/2A	13/2A			
	-F005	7/4B	7/4B			
Double pole MCB ABB S 201-NA C20 1P+N 20A 6kA						
	-F002	7/1B	7/1B			
Double-pole MCB ABB S 282-UC K6A 2P 6A 6kA FAN GROUP 1 CONTROL SUPPLY FAN GROUP 2 CONTROL SUPPLY SEAL-IN RELAY CONTROL SUPPLY						
	-F106	8/2B	8/2B			
	-F206	9/2B	9/2B			
	-F306	12/4B	12/4B			
Double-pole MCB ABB S 282-UC K2A, 2A 1NO + 1NC Aux. contact S2-H11 T/GUARD SYSTEM						
	-F010	14/1B	14/2B	15/2C	15/2C	

In addition to the outdoor labels, all devices will be labelled in the cubicle with the abbreviations.

Device table

02	Material List Chnaged	-	31/10/12
01	Material List Chnaged	-	22/08/12
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Production engineering review

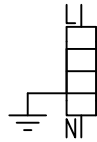


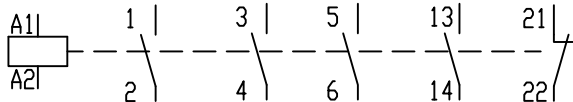
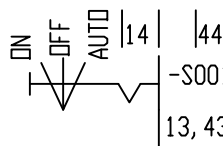
Inspection engineering review

Design engineering review

Name of device Type Techn. data Label	Symbols for devices	Symbols, Current path from the schematic diagram				
Door commond button Telemecanique ZCP-21						
	-S002	7/5C				
	-S003	7/5C				
Switch ABB M2SS2-10B+MCBH-00 MCB-10+MCB-01 M101 OFF-ON M102 OFF-ON M103 OFF-ON M104 OFF-ON M105 OFF-ON M201 OFF-ON M202 OFF-ON M203 OFF-ON M204 OFF-ON M205 OFF-ON						
	-S101	8/2C	8/2C			
	-S102	8/3C	8/3C			
	-S103	8/3C	8/3C			
	-S104	8/3C	8/3C			
	-S105	8/4C	8/4C			
	-S201	9/2C	9/2C			
	-S202	9/3C	9/3C			
	-S203	9/3C	9/3C			
	-S204	9/3C	9/3C			
	-S205	9/4C	9/4C			
Push button ABB MP1-10G+MCBH-00+MCB-10 MP1-10R+MCBH-00+MCB-01 FAN GROUP 1 START FAN GROUP 1 STOP FAN GROUP 2 START FAN GROUP 2 STOP						
	-S114	8/2B				
	-S115		8/2C			
	-S214	9/2B				
	-S215		9/2C			
Selector switch ABB M2SS2-10R+MCBH-00 MCB-10+MCB-01 FAN GROUP 1 MAN. /AUTO. FAN GROUP 2 MAN. /AUTO.						
	-S113		8/3B			
	-S213		9/3B			

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Name of device Type Techn. data Label	Symbols for devices	Symbols, Current path from the schematic diagram					
Heater STEGO HG 140, 60W, 220VAC							
	-E001	7/4C					
Illumination lamp 1*8W, 220VAC ALLROUND							
	-E002	7/5C					
Signal lamp ABB ML1-100R+MCBH-00+MLBL-05R ML1-100G+MCBH-00+MLBL-05G Fan Group 1 in fault Fan Group 1 on-line Fan Group 2 in fault Fan Group 2 on-line							
	-H101	8/6C					
	-H102	8/6C					
	-H201	9/6C					
	-H202	9/6C					
Contactor ABB AF09-30-10-13 125 V DC							
	-K101	8/2C	5/2B	5/2B	5/2B	8/2C	
	-K102	8/3C	5/3B	5/3B	5/3B	8/3C	
	-K103	8/3C	5/3B	5/3B	5/3B	8/2C	
	-K104	8/4C	5/4B	5/4B	5/4B	8/3C	
	-K105	8/4C	5/5B	5/5B	5/5B	8/3C	
	-K201	9/2C	6/1B	6/1B	6/1B	9/4C	
	-K202	9/3C	6/2B	6/2B	6/2B	9/2C	
	-K203	9/3C	6/3B	6/3B	6/3B	9/3C	
	-K204	9/4C	6/3B	6/3B	6/3B	9/3C	
	-K205	9/4C	6/4B	6/4B	6/4B	9/4C	
Selector switch ABB M3SSC1-10B + MCBH-00 2*MCB-10							
Heater ON-OFF-AUTO	-S001	7/4C					

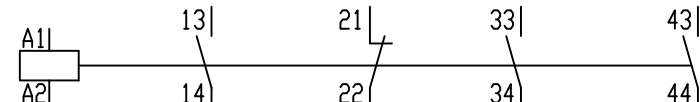
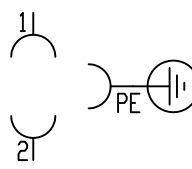
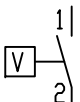
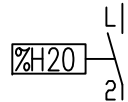
Device table

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Name of device Type Techn. data	Symbols for devices	Symbols, Current path from the schematic diagram					
Aux. contactor ABB NF31E-13 125 V DC							
	-K106	8/5C	8/2B		8/2B		
	-K107	8/5C	15/4A	15/5A			
	-K108	8/5C	15/4A	15/4A			
	-K109	8/5C	15/3A	15/3A			
	-K110	8/2C	15/2A	15/2A			
	-K111	8/2C	8/2B		8/2B	8/3B	
	-K206	9/5C	9/2B		9/2B		
	-K207	9/5C	15/4A	15/5A			
	-K208	9/5C	15/4A	15/4A			
	-K209	9/5C	15/3A	15/3A			
	-K210	9/2C	15/2A	15/2A			
	-K211	9/2C	9/2B		9/2B	9/3B	
	-K903	10/3C	10/3B			5/6A	
SOCKET SCHNEIDER-ELECTRIC PKY16F423 220V 60Hz, 16A							
	-X001	7/3C					
Thermostat STEGO KTD 011 0-60 °C							
	-B001	7/4C					
Humidistad STEGO MFR 012 35...+95°C 35... 95% rF							
	-B002	7/4C					

In addition to the outdoor labels, all devices will be labelled in the cubicle with the abbreviations.

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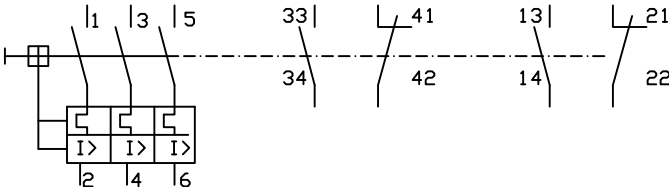
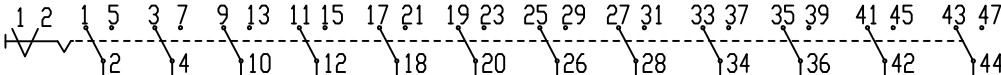
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Name of device Type Techn. data Label	Symbols for devices	Symbols, Current path from the schematic diagram											
Circuit - Breaker ABB MS116-6.3 4-6,3A HK1-11 1NO+1NC Aux. contact HKF1-11 1CO Aux. contact -Q101 -Q102 -Q103 -Q104 -Q105 -Q201 -Q202 -Q203 -Q204 -Q205													
	-Q101	5/2B	8/2C	8/2C	15/2B								
	-Q102	5/3B	8/2C	8/2C	15/3B								
	-Q103	5/3B	8/3C	8/3C	15/4B								
	-Q104	5/4B	8/4C	8/4C	15/5B								
	-Q105	5/4B	8/4C	8/4C	15/5B								
	-Q201	6/2B	9/2C	9/2C	15/2B								
	-Q202	6/3B	9/2C	9/2C	15/3B								
	-Q203	6/3B	9/3C	9/3C	15/4B								
	-Q204	6/4B	9/4C	9/4C	15/5B								
	-Q205	6/4B	9/4C	9/4C	15/5B								
Isolating switch Kraus Naimer CA10-A376-600													
	-S100	10/1C	10/4C	10/4C	10/4C	10/4C	10/5C	10/5C	11/1C	11/2C	12/3C	11/4C	13/1C
	-S200	11/6C	12/2C	12/2C									13/2C

Name of device Type Techn. data Label	Symbols for devices	Symbols, Current path from the schematic diagram					
Fan motor FC100 220 VAC. 3Phase. Star 1,2 / 1,3kW 470rpm (nom.)							
	-M101	5/2C					
	-M102	5/3C					
	-M103	5/3C					
	-M104	5/4C					
	-M105	5/5C					
	-M201	6/1C					
	-M202	6/2C					
	-M203	6/3C					
	-M204	6/4C					
	-M205	6/4C					
Under Voltage Siemens 3UG46 15-1CR20							
-F41	-F41	6/6A	15/5B	15/5B			
Under Voltage Siemens 3UG46 32-1AW30							
-F42	-F42	13/3A	15/6B				
-F43	-F43	12/5A	15/6B				

In addition to the outdoor labels, all devices will be labelled in the cubicle with the abbreviations.

Device table

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Terminal type: Phoenix OTTA-25

R : RED
Y : YELLOW
B : BLUE
G : GREY
G/Y : GREEN/YELLOW
BK : BLACK

Terminals -X1

02	Revised	—	13/03/14
01	Terminal Plan Changed	—	31/10/12
Rev. ind.	Revision	Appd.	Date

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Terminal type: Phoenix OTTA-6

Terminals -X2

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[illegible]

Terminal type: Phoenix UK5 MTK P/P

R : RED
Y : YELLOW
B : BLUE
G : GREY
G/Y : GREEN/YELLOW
BK : BLACK

ABB ELEKTRİK SANAYİ A.Ş.

Based on	Reg.No.	Title CONTROL PANEL OF COOLING AND PROTECTIVE DEVICES	
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1ZTR1204002400


[illegible]

Terminal type: Phoenix OTTA-6

R : RED
Y : YELLOW
B : BLUE
G : GREY
G/Y : GREEN/YELLOW
BK : BLACK

Terminals -X5

01	Terminal Plan Changed	–	31/10/12
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1ZTR1204002400

1	2	3	4	5	6
Line					
Page number of function					
Wire Number					
Designation group: -X6	Terminal	Connection Number		Terminal Number	Link
		Code			
	Terminal		Connection Number		Link
	Code				
	Cable No		Cable type		Current transformers
W40	XLPE/PVC/PVC	4x4	mm ²	1Y2Y	
W41	XLPE/PVC/PVC	4x4	mm ²		1Y2Y
W42	XLPE/PVC/PVC	4x4	mm ²		1Y2Y3Y
W43	XLPE/PVC/PVC	4x4	mm ²		1Y2Y
W44	XLPE/PVC/PVC	4x4	mm ²		1Y2Y
W45	XLPE/PVC/PVC	4x4	mm ²		1Y2Y3Y
W38	XLPE/PVC/PVC	4x4	mm ²		1Y2Y
W46	XLPE/PVC/PVC	4x4	mm ²		1Y2Y
W47	XLPE/PVC/PVC	4x4	mm ²		1Y2Y
W48	XLPE/PVC/PVC	4x4	mm ²		1Y2Y3Y
W39	XLPE/PVC/PVC	4x4	mm ²		1Y2Y
W49	XLPE/PVC/PVC	4x4	mm ²		1Y2Y
W50	XLPE/PVC/PVC	4x4	mm ²		1Y2Y
W51	XLPE/PVC/PVC	4x4	mm ²		1Y2Y
W52	XLPE/PVC/PVC	4x4	mm ²		1Y2Y
W53	XLPE/PVC/PVC	4x4	mm ²		1Y2Y
Terminal type: Phoenix OTTA-6-T-P/P		R : RED Y : YELLOW B : BLUE G : GREY G/Y : GREEN/YELLOW BK : BLACK		ABB ELEKTRIK SANAYI A.S.	
Terminals -X6		Production engineering review		Based on	
03 02 01		Revised Terminal Plan Changed Terminal Plan Changed		Reg.No.	
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		Appd.		GK	
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		Inspection engineering review		Approved	
		Design engineering review		SV	
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[illegible]

Terminal type: Phoenix OTTA-6

R : RED
Y : YELLOW
B : BLUE
G : GREY
G/Y : GREEN/YELLOW
BK : BLACK

Terminals -X7

01	Terminal Plan Changed	–	31/10/12
01	Terminal Plan Changed	–	22/08/12
Rev. ind.	Revision	Appd.	Date

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ABB ABB Transformers

1ZTR1204002400

Terminal type: Phoenix 1..20 : OTTA-6

Terminal type: Phoenix 21..40 : UK5 MTK P/P

SH: Shield

R : RED

Y : YELLOW

B : BLUE

G : GREY

G/Y : GREEN/YELLOW

BK : BLACK

ABB ELEKTRIK SANAYI A.S.

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Terminals -X8

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H

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Terminal type: Phoenix : OTTA-6

R : RED
Y : YELLOW
B : BLUE
G : GREY
G/Y : GREEN/YELLOW
BK : BLACK

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Terminals -X9

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